

WHAT IS CLAIMED IS:

1. A system for discovering potential devices on a peer-to peer (P2P) network, comprising:  
a seeker device; and  
5 a plurality of potential devices operatively connected to the P2P network;  
wherein each of the plurality of potential devices is associated with one or more identity files, each of the identity files comprising a plurality of searchable elements;  
wherein one or more of the plurality of potential end-user devices post their one or more identity files on the P2P network;  
10 wherein the seeker device searches the P2P network to discover one or more of the plurality of potential devices based on the one or more identity files of the plurality of the potential devices; and  
wherein the seeker device initiates a collaboration session with the one or more potential devices.

15 2. The system of claim 1, wherein the seeker device is a seeker end-user device and the plurality of potential devices are a plurality of potential end-user devices.

20 3. The system of claim 2, wherein each of seeker end-user device and the plurality of potential end-user devices comprises at least one of a personal digital assistant, a laptop, and a cellular phone.

25 4. The system of claim 1, wherein each of the one or more identity files of the plurality of the potential devices is downloaded from a Web service provider in response to the seeker device sending a Web service request to the Web service provider.

30 5. The system of claim 1, wherein the seeker end-user device logs on a Web service provider to gain access to the P2P network using Web services and simple-object access protocols (SOAP) over hypertext transfer protocol (HTTP) and internet protocol (IP) networks.

6. The system of claim 1, wherein the seeker device is a machine connected to an IP network.

7. The system of claim 1, wherein the P2P network comprises at least one of Kazaa, OpenNAP, Gnutella, FastTrack, LimeWire, eMule/Kademlia, and Napster.

8. The system of claim 1, wherein each of the one or more identity files of the plurality of the potential devices comprises an extensible markup language (XML) file.

9. The system of claim 1, wherein the collaboration session is independent of the P2P network.

10. A method for a seeker device discovering potential collaborators on a peer-to peer (P2P) network, comprising:

discovering one or more entry point nodes to the P2P network;

registering a seeker device on the P2P network;

performing identity provisioning on a P2P network;

performing one or more searches on the P2P network;

obtaining one or more search results for potential collaborators on the P2P network; and

initiating at least one of an application and a service to form a collaboration session with one or more potential collaborators from the search results.

11. The method of claim 10, wherein performing identity provisioning comprises performing self-provisioning.

12. The method of claim 11, wherein performing self-provisioning comprises automatically self-provisioning using at least one of a clear text xml filename and a hash key derived from the profile information.

13. The method of claim 10, further comprising obtaining service and identity availability for each of the one or more search results.

14. The method of claim 10, further comprising narrowing the search results.

5 15. The method of claim 14, wherein narrowing the search results comprises:  
downloading a search form from a Web service provider in response to a Web  
service request, the search form comprising a plurality of search fields;  
populating one or more of the plurality of search fields; and  
10 narrowing the one or more search results based on the one or more of the  
plurality of search fields.

16. The method of claim 10, wherein discovering one or more entry point nodes to the P2P network comprises:

15 querying a Web service running on a Web service cluster;  
receiving an identity form from a Web service provider in response to a Web  
service request, the identity form comprises a plurality of information fields;  
populating one or more of the plurality of information fields; and  
posting the identity form on the P2P network.

20 17. A method for a seeker device discovering potential collaborators on a peer-to peer (P2P) network, comprising:

registering with a P2P network;  
initiating a Web service to a Web service provider;  
25 requesting an available P2P server on the P2P network from the Web service  
provider using the Web service;  
registering the available P2P server in a Web service cluster using the Web  
service;  
performing identity self-provisioning on the P2P network;  
30 obtaining one or more search results searching for a potential collaborator on the  
P2P network;

obtaining service and identity availability for each search result;  
narrowing the number of search results to generate a narrowed result list; and  
initiating a collaboration session with one or more potential collaborators on the  
narrowed result list.

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18. The method of claim 17, wherein registering with a P2P network  
comprises registering automatically with a P2P network when the seeker end-user device  
connects to an IP network.

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19. The method of claim 17, wherein initiating a Web service to a Web  
service provider comprises initiating a Web service to a Web service provider using  
HTTP/XML/SOAP protocols.

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20. The method of claim 17, further comprising discovering the Web service  
provider using a UDDI Web service registry and business entities.

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21. The method of claim 17, wherein requesting an available P2P server on  
the P2P network from the Web service provider using the Web service comprises sending  
a Web service request using a Web service to the Web service provider, the Web service  
request requesting a list of available P2P servers.

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22. The method of claim 21, wherein sending a Web service request using a  
Web service to the Web service provider comprises sending a Web service request  
defined in a WSDL service descriptor file using a Web service to the Web service  
provider.

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23. The method of claim 17, wherein performing identity self-provisioning on  
the P2P network comprises:  
receiving an identity form from the Web service provider in response to a Web  
service request, the identity form comprises a plurality of information fields;  
populating one or more of the plurality of information fields; and

posting the identity form on the P2P network.

24. The method of claim 17, wherein obtaining one or more search results searching for a potential collaborator on the P2P network comprises performing a P2P filename search.

25. The method of claim 17, wherein narrowing the number of search results to generate a narrowed result list comprises:

downloading a search form from the Web service provider in response to a Web service request, the search form comprising a plurality of search fields;

populating one or more of the plurality of search fields;

narrowing the one or more search results based on the one or more of the plurality of search fields; and

storing the results from the step of narrow in the narrowed result list.

26. The method of claim 17, wherein initiating a collaboration session with one or more potential collaborators on the narrowed result list comprises with one or more potential collaborators on the narrowed result list independent of the P2P network.

27. A machine-readable medium having instructions stored thereon for execution by a processor to perform a method for a seeker device discovering potential collaborators on a peer-to peer (P2P) network, comprising:

discovering one or more entry point nodes to the P2P network;

registering a seeker device on the P2P network;

performing identity provisioning on a P2P network;

performing one or more searches on the P2P network;

obtaining one or more search results for potential collaborators on the P2P network; and

initiating at least one of an application and a service to form a collaboration session with one or more potential collaborators from the search results.

28. A machine-readable medium having instructions stored thereon for execution by a processor to perform a method for a seeker device discovering potential collaborators on a peer-to peer (P2P) network, comprising:

- 5       registering with a P2P network;
- initiating a Web service to a Web service provider;
- requesting an available P2P server on the P2P network from the Web service provider using the Web service;
- registering the available P2P server in a Web service cluster using the Web
- 10       service;
- performing identity self-provisioning on the P2P network;
- obtaining one or more search results searching for a potential collaborator on the P2P network;
- obtaining the service and identity availability for each search result;
- 15       narrowing the number of search results to generate a narrowed result list; and
- initiating a collaboration session with one or more potential collaborators on the narrowed result list.